CD is a mono- or polydeoxy α-, ß- or γ-cyclodextrin, carrying in its 6-, 3- and/or 2-position the aminooxy function containing group ($X-Y-ONH_2$), and optionally carrying further substituents different from ($X-Y-ONH_2$) in their 6-, 3- and/or 2-positions, and wherein Y is a linker group between the aminooxy group and the mono- or polydeoxy-CD-group,

X is a functional group or an atom necessary to connect the linker Y and the deoxy CD group, or Y is a direct bond when X is a direct bond, and

n is greater than or equal to 1, but less than or equal to 18, 21 or 24 for α-, ß- or γ-cyclodextrin, respectively, as well as the aminooxy protected derivatives thereof.

B1 concl'd

2. (Amended) The derivative according to claim 1, wherein Y and X are both direct bonds.

3. (Amended) The derivative according to claim 1 or 2, wherein one or more of the primary hydroxyl groups at a 6-position of α-, ß- or γ-CD are substituted with a $X-Y-ONH_2$ fragment, wherein X and Y have the meaning of claim 1.

B2

4. (Twice Amended) The derivative according to claim 1, wherein Y is a linear or branched alkylene, alkenylene with one or more double bounds which may be either isolated or conjugated,

alkynylene with one or more triple bonds which may be either isolated or conjugated, or arylene or arylalkylene fragments where aryl may be substituted or not substituted, whereby the alkylene, alkenylene and alkynylene fragments may be linear or branched, and one or more of the chain members (methylene groups) may be replaced by -NH-, -O-, -S-, -S-S-, -C(O)NH, -C(O)O-, -OP(O)(OH)O-, -S(O)-, SO_2-, or -CHR-, where R is alkyl, aryl, -OR', $-NH_2$, -NHR', $-NR'_2$, -OH, -COOH, or $-ONH_2$ groups and where R' is alkyl, aryl, or acyl.

5. (Twice Amended) The derivative according to claims 1 or 4, wherein X is selected from the group consisting of -O-, -S-, -NH-, -NR"-, -OCO-, -NH-O-, =NO-, -NHC(O)-, -OP(O)(OH), and -R"C=NO-, where R" is linear or branched lower alkyl.

B2 cont'd

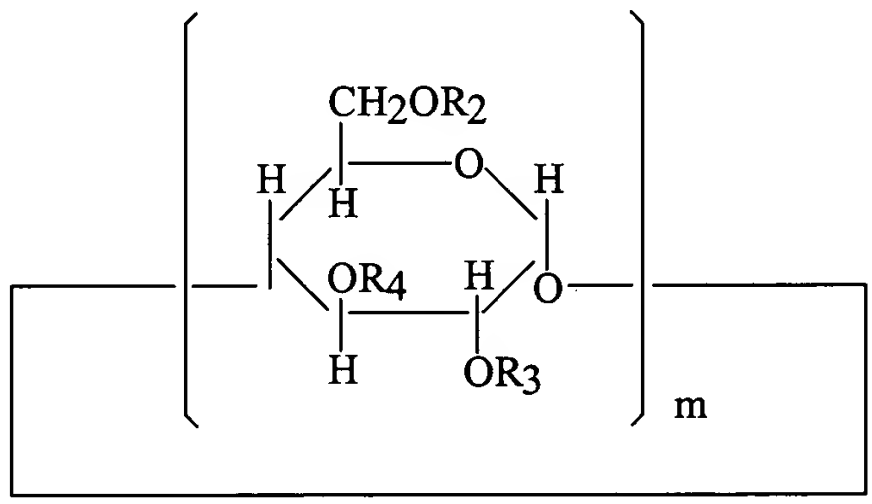
6. (Twice Amended) The derivative according to claim 4, wherein Y is alkylene containing 2-12 C-atoms, wherein one or more of the chain members may be replaced by -NH-, -O-, -S-, -C(O)NH-, -C(O)O-, or CHR_1 wherein R_1 is methyl, ethyl or propyl and X is -O-, -S-, -NH-, -OC(O)-, or -NH-C(O)-.

7. (Twice Amended) The derivative according to claim 1, wherein one or more of the hydroxyl groups at 6-, 3-, and/or 2-position(s) are substituted with a group selected from the group consisting of H_2N-, HS-, -COOH, alkoxy-, aryloxy-, and acyloxy, and

B2 Cont'd wherein said alkoxyl-, aryloxy-, and acyloxy- can contain H_2N-, HS-, or -COOH in their structure, side chain or aromatic ring.

8. (Amended) A method for preparing the derivative of claim 1 of formula 1, wherein X is an oxygen atom, comprising the steps of:

a) alkylating a cyclodextrin of formula (3) at one or more of the positions 6, 3, and/or 2 containing a hydroxyl group,



(3)

B3

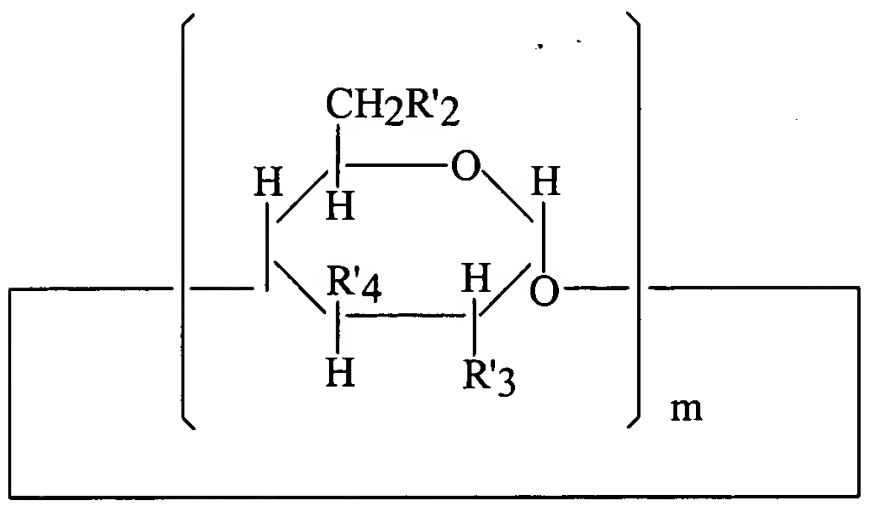
wherein R_2, R_3, and R_4 are hydrogen or substituents selected from the group consisting of alkyl, aryl and acyl, and wherein said substituents' functional groups, if they exist, are protected whenever necessary,

with a compound according to formula (3'):

$$Z - Y - ON = C\ (CH_3)\ W \qquad (3')$$

wherein W is $-OC_2H_5$ or $-CH_3$, m and Y are as defined in claim 1, and Z is a reactive group, and optionally protecting group(s) is/are removed, or

b) alkylating a cyclodextrin derivative of formula (4)



(4)

wherein R'_2, R'_3, R'_4 are hydroxy or activated groups selected from the group consisting of tosyl, mesyl, halogen, ester and epoxyor said substituent being in a protected form if necessary, whereby the cyclodexrin derivative contains at least one of said activated groups

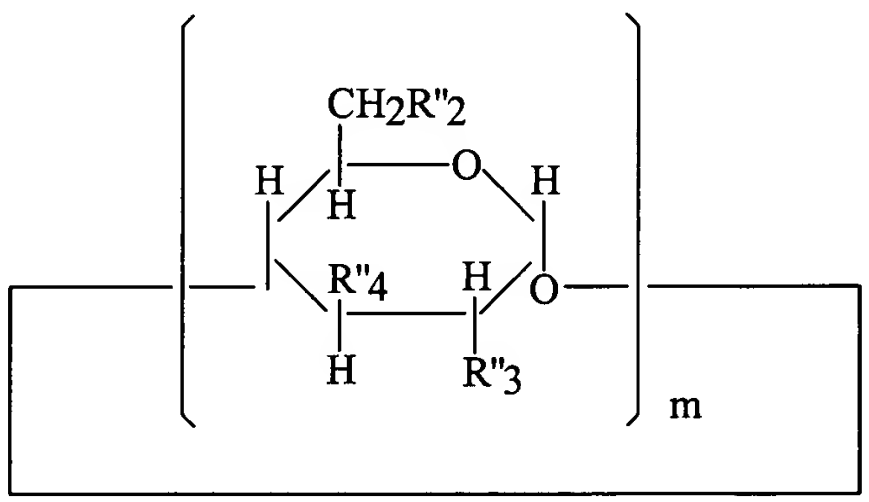
with the compound of formula (4')

$$HX - Y- ON = C (CH_3) W \qquad (4')$$

B3 cont'd

wherein X and Y are as in claims 1, 4 or 5, and W is $-OC_2H_5$ or $-CH_3$, and protecting group(s) is/are removed if necessary, or

(c) reacting a cyclodextrin derivative of formula (5)



(5)

wherein at least one of the groups R''_2, R''_3, and R''_4 are thiol-, amino-, carboxy-, or alkoxy-, aryloxy- or acyloxy groups which contain at least one thiol-, amino-, carboxy- group, or their derivative, and the remaining functional groups are hydroxyl groups or they have the meaning described in claim 7 for the substituents, and exist, if necessary, in a protected form, with an appropriate aminooxy protected substituted hydroxylamine according to formula (3'), after which the protecting group(s) are removed, or

(d) reacting a cyclodextrine derivative of formula (5), which contains one or more of keto or aldehyde groups,

with bisaminooxy alkanes of formula (5')

$$H_2NO\ (CH_2)_tONH_2 \qquad (5')$$

wherein t is 2-12, and wherein one of the methylene groups can be substituted with oxygen or sulfur atom, or wherein -NH- or -S-S- groups, and a protecting group is removed if necessary.

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10. (Amended) An oxime created from any one of the aminooxy-CDs of claim 1 by reacting said aminooxy-CDs with synthetic or natural aldehydes or ketones.

11. (Amended) Derivatives of nucleotide or nucleoside pyrimidines or purines with aminooxy-CDs, wherein said aminooxy group is linked to the heterocyclic ring of said pyrimidines or purines.

Please add the following new claims:

--12. (New) The aminooxy-cyclodextrin derivatives of claim 1, wherein the aminooxy protected derivative is ethoxy-ethylidene or acetone oxime derivatives thereof.--

--13. (New) The derivatives according to claim 4, where the alkylene, alkenylene, and alkynylene fragments contain 2 to 12 c-atoms in the chain.--

--14. (New) The derivatives of claim 7, where the alkoxy is a C_1-C_6 alkoxy, the aryloxy is phenyloxy, benzyloxy or tolyloxy, and the acyloxy originates from C_1-C_6 carboxyl or benzoic acids.--

--15. (New) The derivatives of claim 11, wherein the aminooxy group is linked to the heterocyclic ring through pyrimidine C-4 and purine C-6, and wherein pyrimidine and purine are cytosine or adenine, or their derivatives.--

--16. (New) A method for preparing the derivative of formula 1 of claim 3, wherein X is an oxygen atom, comprising the steps of:

a) alkylating a cyclodextrin of formula (3), at one or more of the positions 6, 3, and/or 2 containing a hydroxyl group,

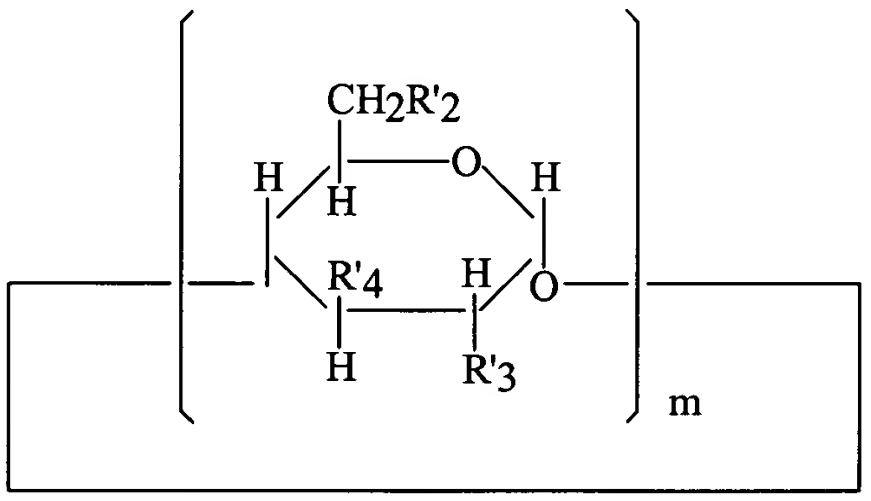
wherein R_2, R_3, and R_4 are hydrogen or substituents selected from the group consisting of alkyl, aryl, and acyl, and wherein said substituents' functional groups, if they exist, are protected whenever necessary,

with a compound according to formula (3'):

$$Z - Y - ON = C(CH_3)W \qquad (3')$$

wherein W is $-OC_2H_5$ or $-CH_3$, m and Y are as defined in claim 3, and Z is a reactive group, and optionally protecting group(s) is/are removed, or

b) alkylating a cyclodextrin derivative of formula (4)



(4)

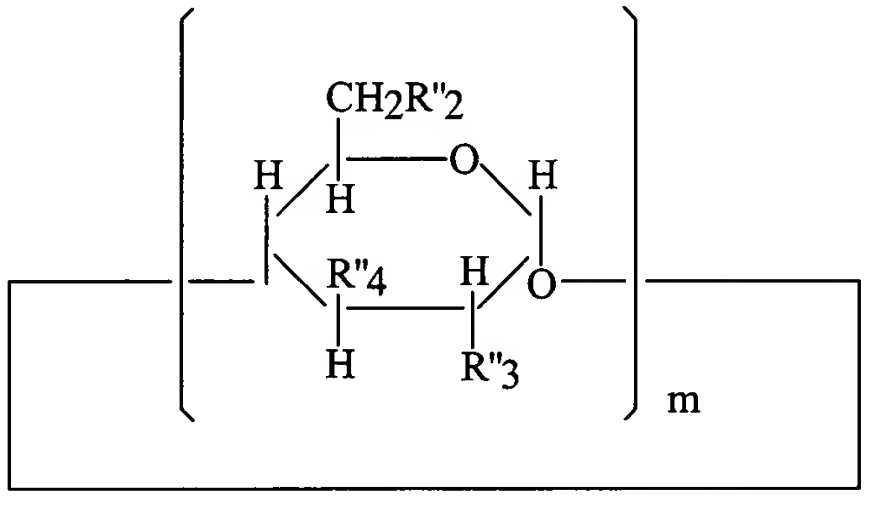
wherein R'_2, R'_3, R'_4 are hydroxy or activated groups selected from the group consisting of tosyl, mesyl, halogen, ester and epoxy or said substituent being in a protected form if necessary, whereby the cyclodextrin derivative contains at least one of said activated groups

with the compound of formula (4')

$$HX - Y - ON = C(CH_3)W \qquad (4')$$

wherein X and Y are as in claims 1, 4 or 5 and W is $-OC_2H_5$ or $-CH_3$, and protecting group(s) is/are removed if necessary, or

(c) reacting a cyclodextrin derivative of formula (5)



(5)

wherein at least one of the groups R''_2, R''_3, and R''_4 are thiol-, amino-, carboxy-, or alkoxy-, aryloxy-, or acyloxy groups which contain at least one thiol-, amino-, carboxy-group, or their derivative, and the remaining functional groups are hydroxyl groups or they have the meaning described in claim 7 for the substituents, and exist, if necessary, in a protected form, modified with an appropriate aminooxy protected substituted hydroxylamine according to formula (3'), after which the protecting group(s) are removed, or

B5 cont'd

(d) reacting a cyclodextrin derivative of formula (5), which contains one or more of keto or aldehyde groups,

with bisaminooxy alkanes of formula (5')

$$H_2NO\ (CH_2)_tONH_2 \qquad (5')$$

B5 cancel

wherein t is 2-12, and wherein one of the methylene groups can be substituted with oxygen or sulfur atom, or wherein -NH- or -S-S- groups, and a protecting group is removed if necessary.--